

**U. S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT Environmental Management/Paducah Remediation Services (PRS), LLC		2. DATE 04/24/08	3. IDENTIFICATION SITE Paducah Project DOE Portsmouth/Paducah Project Office (PPPO)
4. WBS ELEMENT CODE 04.11.10.14		5. WBS ELEMENT TITLE Outyear C-746-D Soils	
6. INDEX LINE NO. N/A	7. REVISION NO. AND AUTHORIZATION Rev 1		8. DATE 09/30/08
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION N/A		11. BUDGET AND REPORTING NUMBER N/A	
12. ELEMENT TASK DESCRIPTION This is a planning level WBS Dictionary. <u>WBS STRUCTURE</u> The scope of this element includes the following subelements: <ul style="list-style-type: none"> WBS 04.11.10.14.01 Outyear C-746-D Soils Subproject Management WBS 04.11.10.14.02 Outyear C-746-D Soils Removal <u>INTRODUCTION</u> Scrap material was relocated to the C-746-D yard of the Paducah Gaseous Diffusion Plant (PGDP) for storage. The surfaces of this scrap inventory were contaminated during their use in the enrichment process. Disposal of the scrap materials was completed in fiscal year (FY) 2006 as part of a Removal Action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to dispose of scrap metal located in various yards in the northwest corner of the PGDP, as well as scrap located at the C-746-D Scrap Yard. Residual contaminants remain in the surface and shallow subsurface soils in the C-746-D yard. The objective of this project is to excavate, characterize, package, and transport this material to a DOE approved facility for disposition. This project will be completed as a non-CERCLA maintenance action and is not intended to address cleanup or corrective actions under CERCLA and /or RCRA. Those will be addressed under the separate WBS element, Soils Operable Unit. <u>LOGIC RELATIONSHIPS</u> Interfaces <u>Internal to Contractor</u> <ul style="list-style-type: none"> All contractor project managers and staff All subcontractors <u>External to Contractor</u> <ul style="list-style-type: none"> U.S. Department of Energy (DOE) Portsmouth/Paducah Project Office and support contractors DOE Headquarters or other DOE sites (if applicable) U.S. Environmental Protection Agency (EPA) Commonwealth of Kentucky (KY) Site tenants including United States Enrichment Corporation (USEC), Uranium Disposition Services, LLC (UDS), and Swift and Staley Team (SST) USEC services in the area of property, information technology, radios, etc. 			

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<ul style="list-style-type: none">• SST, particularly in the areas of property management, information technology, and security.• Nevada Test Site (NTS): Profiling and disposition , if required or applicable.• EnergySolutions: Profiling, treatment, and disposition of mixed and LLW, if required or applicable.• TSCA Incinerator, if required or applicable.• Commercial treatment, storage, and disposal facility: For treatment and disposal of non radioactive hazardous waste, if required or applicable• Stakeholders• Citizens Advisory Board and supporting contractor EHI• DOE Integrated Safety Management System (ISMS) Verification Team• Other non regulatory key interfaces		
Time Sequencing with Other Work: <ul style="list-style-type: none">• CERCLA Removal Action under the Surface Water Operable Unit (Scrap Metal) previously conducted between 2003-2006.• CERCLA Remedial Action under the Soils Operable Unit (SWMU 16) to be conducted between 2008-2015.		
<u>SCOPE DESCRIPTION</u>		
WBS 04.11.10.14.01 Outyear C-746-D Soils Subproject Management Provide overall management activities associated with this subproject. Activities performed under this sub element include the following: <ul style="list-style-type: none">• Perform technical, contractual, and project functions necessary to effectively manage and report scope, schedule, and budget.• Maintain all activities within the defined safety, environmental, and quality requirements.• Perform technical and personnel management functions.• Maintain technically qualified and properly trained personnel.• Develop, evaluate, and report project performance metrics.• Interface with DOE, KY, EPA, other prime contractors, and stakeholders, as needed.• Submit a letter to DOE indicating that the desired end state has been achieved.		
WBS 04.11.10.14.02 Outyear C-746-D Soils Removal Provide personnel, equipment, and materials to remove concrete and soils from the C-746-D Storage Yard. <ul style="list-style-type: none">• Make necessary notifications to regulatory agencies (e.g. SWMU Planned Physical Alteration Notice);• Procure subcontractor support for transportation and for containers;• Excavate contaminated concrete and soils from top 18 inches of yard, for up to 76% of the area of the yard, which is 181 feet by 336 feet;• Develop waste profiles for the selected Treatment, Storage, and Disposal (TSD)Facilities;• Characterize, package, and ship all contaminated concrete and soils to a DOE-approved facility for disposal. Material shall be processed and/or packaged to meet disposal or receiver site waste acceptance criteria (WAC) as stipulated by the receiver sitel;• Backfill, gravel and re-grade excavation;• Remove and dispose of fence; and• Conduct radiological surveys and re-post the area as appropriate based on the survey results.		
<u>DELIVERABLES</u>		

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WBS 04.11.10.14.01 Outyear C-746-D Soils Subproject Management <u>Element Milestones:</u> <ul style="list-style-type: none">September 30, 2009 (Current end of PRS prime contract with DOE). <u>Element Deliverables:</u> <ul style="list-style-type: none">Paducah Contractor Work Control Package, including Work Instructions and Waste Management Plan, Security Plan and relevant permits, if applicable.Paducah Contractor Environmental, Safety, and Health (ES&H) Plan.Submittal of a letter to DOE describing that the desired end state has been achieved and that all wastes generated have been properly disposed of into approved TSD Facilities.Provide input to the following reports and submittals (if applicable):<ul style="list-style-type: none">Monthly Project Performance ReportRisk Management Plan updatesSite Management Plan (SMP)Solid Waste Management Unit (SWMU) Assessment ReportPresentationsFederal Facility Agreement (FFA) briefingsLabor determinationsGold Chart Performance MetricsAnnual updates to Site Treatment PlanAnnual Compliance Agreement ReportAnnual ISMS UpdateAnnual Work Smart Standards UpdateFinancial Reporting, Management Analysis Reporting SystemAnnual Statement of Costs Incurred and ClaimedMonthly Commitment ReportsOther reports/documents, as necessary (e.g. notification of work in a SWMU, and NEPA pre-approved Categorical Exclusion for facility modifications)		
WBS 04.11.10.14.02 Outyear C-746-D Soils Removal <u>Element Milestones:</u> <ul style="list-style-type: none">September 30, 2009 (Current end of PRS prime contract with DOE). <u>Element Deliverables:</u> <ul style="list-style-type: none">None.		
<u>REQUIREMENTS</u> <ul style="list-style-type: none">National Environmental Policy ActKY Hazardous Waste Permit (KY8-890-008-982)FFA for PGDPSMP for PGDP (annual revisions)Applicable state and federal laws and regulations (applicable or relevant and appropriate requirements)Contractor ISMSUEO-1066, as updated - Lease Agreement Between DOE and USEC, Rev. 4, dated October 30, 2001Enclosure to GDP 95-0018, as updated – USEC and DOE Resolution of Shared Site Issues, Revision 1, dated March 30, 1998		

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<ul style="list-style-type: none">• Applicable contractor plans, policies, and procedures.• WAC for all applicable treatment and disposal facilities that were in effect on April 24, 2006.• Applicable DOE Orders• Applicable Federal Acquisition Regulations• Integrated Safeguards and Security Management• Environmental Management System <p>It is the core value of the contractor that the safety and health of every worker, the public at large, and our environment are the most important assets that we are entrusted to protect. To accomplish this, an ISMS, based on DOE's ISMS, has been implemented that incorporates the five core functions and is based on the seven guiding principles. The objective of ISMS is to systematically integrate safety and environmental protection into the planning and execution of all work activities. The term safety encompasses Nuclear Safety, Industrial Safety, Industrial Hygiene, Occupational Health, Health Physics, and environmental issues. ISMS requirements flow-down to Contractor's subcontractors. The five core functions are (1) define the scope of work, (2) analyze hazards, (3) develop and implement hazard controls, (4) perform work within controls, and (5) provide feedback and continuous improvement. The seven guiding principles are (1) line management responsibility for safety, (2) clear roles and responsibilities, (3) competence commensurate with responsibility, (4) balanced priorities, (5) identification of safety standards and requirements, (6) hazard control tailored to work being performed, and (7) operations authorization.</p> <p>Before a subproject begins, several activities must be completed that demonstrate that all involved in the project have completed rigorous health and safety reviews and that all potential hazards of doing the work have been identified. The routine activities in remedial actions are conducted in accordance with standard operating procedures, activity hazard analyses, and Integrated Safety Management plans. Nonroutine work will require a readiness assessment, as necessary, to ensure complete health, safety, and environmental reviews prior to work start. This assessment is conducted by people experienced in similar kinds of work with the right to examine all aspects of a project about to commence and requires that the project team provide documented evidence that any applicable requirements of the job have been met.</p>		
<u>SCOPE ASSUMPTIONS</u>		
<ul style="list-style-type: none">• NTS will remain open and continue to receive waste.• Field work at C-746-D will require a work force with at least an L clearance.• Soils and concrete are radiologically contaminated low level waste with an expected transuranic component.• No RCRA or TSCA contamination is expected to be present.• The top 18 inches of concrete and soil will be removed, up to 86% of the area of the yard, which is 181 ft. by 336 ft. This assumption is based on the maximum amount of material to be removed and disposed that will not exceed \$7.5 million. Refinements on the volume to be removed will be made following the initiation of excavation.• Process knowledge and existing data is sufficient for characterization and profiling for disposal at NTS.• The site will be restored by backfilling, graveling, regrading, and fence removal and disposal.• There will be no tipping for NTS since DOE funds this directly.		
<u>COMPLETION CRITERIA</u>		
WBS 04.11.10.14.01 Outyears C-746-D Soils Subproject Management		

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- Submittal of a letter to DOE describing that the desired end state has been achieved and that all wastes generated have been properly disposed of into approved TSD Facilities.

WBS 04.11.10.14.02 Outyears C-746-D Soils Removal
This work scope will be considered complete following:

- Removal and disposition of concrete and soil from the C-746-D Scrap Yard so that the fence can be removed and disposed into an approved TSD Facility;
- Backfilling, graveling, regrading and reposting the yard;

RISK MANAGEMENT

See Risk Management Plan for analysis.

CERCLA AREAS AND SWMU

The C-746-D yard is SMWU 16. In accordance with the FFA, a notification of planned physical alteration of a SWMU was submitted to KDWM on November 29, 2007 through DOE.

BASIS OF ESTIMATE

1. Summary of Site Conditions

2. Estimating Methods
☐ Parametric ☐ Bottom-Up ☒ Other: Bottom-up/Parametric

3. Sources of Estimating
Labor – Estimated level of effort for skilled labor, professional, and management resource staffing is based on experience on projects similar to the soils removal project.

Equipment – Vendor quotes, National Alliance contracts, and construction industry blue book (fuel, oil, gas, and materials allowance)

Materials – Vendor quotes or National Alliance contracts

Other Direct Cost – Vendor quotes or National Alliance contracts

Subcontracts – Subcontractor cost proposal or existing DOE contract pricing

4. Basis of Estimate (Unescalated values)
See Detail Estimate.

WASTE VOLUMES

See attached waste performance metrics, as applicable.

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PROJECT SCHEDULE

See attached schedule.

BASELINE BY YEAR

See attached Baseline by Year Report.